

Nuri Denizcan Vanli

Resume

Department of Electrical and Electronics Engineering
Bilkent University, Ankara 06800, Turkey

e-mail: vanli@ee.bilkent.edu.tr
web: <http://www.ee.bilkent.edu.tr/~vanli>

EDUCATION **Bilkent University**, Ankara, Turkey

M.S. in Electrical and Electronics Engineering, CGPA: 4.00 / 4.00 Sep 2013 – Present
Expected Graduation Date: June 2015

B.S. in Electrical and Electronics Engineering, CGPA: 3.93 / 4.00 Aug 2008 – June 2013

Izmir Science High School, Izmir, Turkey

High School Degree with CGPA: 92.83 / 100.00 Sep 2004 – June 2008

AWARDS AND HONORS

- 6 journal papers published in highly respected transactions, including **4 IEEE Transactions**.
- 6 journal papers submitted to highly respected transactions.
- 15 conference papers presented in high impact conference proceedings.
- TUBITAK Scholarship for the M.S. degree.
- Bilkent University Graduate Research Conference (GRC), Best Oral Presentation Award in Signal Processing/Communications/Network, 2014.
- Bilkent University Research Excellence Award, 2013.
- Bilkent University Academic Distinction Award, 2013.
- Bilkent University Social Awareness & Professional Activities Award, 2013.
- Bilkent University High Honor Student during undergraduate studies.
- Bilkent University Full Scholarship for the B.S. degree in the EEE Department.
- Prime Ministry High Achievement Scholarship during the B.S. degree.
- 125th in the National University Entrance Examination among more than 1M candidates, 2008.
- 37th in the National High School Entrance Examination among more than 0.5M candidates, 2004.
- Bronze Medalist in the 9th National Secondary School Mathematics Olympiad (TUBITAK), 2004.

JOURNAL PAPERS

1. **N. D. Vanli** and S. S. Kozat, “A Comprehensive Approach to Universal Nonlinear Piecewise Nonlinear Regression Based on Trees,” **IEEE Transactions on Signal Processing**, vol. 62, no. 20, pp. 5471-5486, Oct. 2014.
2. **N. D. Vanli** and S. S. Kozat, “A Unified Approach to Universal Prediction: Generalized Upper and Lower Bounds,” **IEEE Transactions on Neural Networks and Learning Systems**, vol. 26, no. 3, pp. 646-651, March 2015.
3. M. O. Sayin, **N. D. Vanli**, and S. S. Kozat, “A Novel Family of Adaptive Filtering Algorithms Based on the Logarithmic Cost,” **IEEE Transactions on Signal Processing**, vol. 62, no. 17, pp. 4411-4424, Sep. 2014.
4. **N. D. Vanli**, M. A. Donmez, and S. S. Kozat, “Robust Least Squares Methods Under Bounded Data Uncertainties,” **Digital Signal Processing**, vol. 36, pp. 82-92, Jan. 2015.
5. B. Dulek, **N. D. Vanli**, S. Gezici, and P. K. Varshney, “Optimum Power Randomization for the Minimization of Outage Probability,” **IEEE Transactions on Wireless Communications**, vol. 12, no. 9, pp. 4627-4637, Sep. 2013.
6. S. Bayram, **N. D. Vanli**, B. Dulek, I. Sezer, and S. Gezici, “Optimum Power Allocation for Average Power Constrained Jammers in the Presence of Non-Gaussian Noise,” **IEEE Communications Letters**, vol. 16, no. 8, pp. 1153-1156, Aug. 2012.

JOURNAL
PAPERS UNDER
REVIEW

1. **N. D. Vanli**, M. O. Sayin, and S. S. Kozat, “Predicting Nearly As Well As the Optimal Twice Differentiable Regressor,” submitted to **Machine Learning**, 2015.
2. **N. D. Vanli**, M. O. Sayin, and S. S. Kozat, “Stochastic Subgradient Algorithms for Strongly Convex Optimization over Distributed Networks,” submitted to **IEEE Transactions on Knowledge and Data Engineering**, 2014.
3. **N. D. Vanli**, H. Ozkan, and S. S. Kozat, “Online Classification via Self-Organizing Space Partitioning,” submitted to **IEEE Transactions on Pattern Analysis and Machine Intelligence**, 2015.
4. **N. D. Vanli**, M. O. Sayin, H. Yildiz, and S. S. Kozat, “Sequential Prediction over Hierarchical Models,” submitted to **IEEE Transactions on Signal Processing**, 2015.
5. **N. D. Vanli**, M. O. Sayin, and S. S. Kozat, “Sequential Nonlinear Learning for Distributed Multi-Agent Systems via Feedforward Networks,” submitted to **IEEE Transactions on Neural Networks and Learning Systems**, 2015.
6. **N. D. Vanli**, S. Tunc, M. A. Donmez, and S. S. Kozat, “Growth Optimal Investment in Discrete-Time Markets with Proportional Transaction Costs,” submitted to **Digital Signal Processing**, 2015.

WORKING
PAPERS

1. **N. D. Vanli** and S. S. Kozat, “Counterfactual Reasoning with Feedback,” to be submitted to **IEEE Transactions on Signal Processing**, 2015.
2. **N. D. Vanli** and S. S. Kozat, “Randomized Extreme Learning Machines,” to be submitted to **IEEE Transactions on Neural Networks and Learning Systems**, 2015.

CONFERENCE
PAPERS

1. **N. D. Vanli**, H. Ozkan, I. Delibalta, and S. S. Kozat, “Online Nonlinear Classification for High-Dimensional Data,” to appear in **IEEE International Congress on Big Data (BigData Congress)**, 2015.
2. **N. D. Vanli**, M. O. Sayin, I. Delibalta, and S. S. Kozat, “A Scalable Approach for Online Hierarchical Big Data Mining,” to appear in **IEEE International Congress on Big Data (BigData Congress)**, 2015.
3. M. O. Sayin, **N. D. Vanli**, I. Delibalta, and S. S. Kozat, “Optimal and Efficient Distributed Online Learning for Big Data,” to appear in **IEEE International Congress on Big Data (BigData Congress)**, 2015.
4. **N. D. Vanli**, M. O. Sayin, T. Goze, and S. S. Kozat, “Twice-Universal Piecewise Linear Regression via Infinite Depth Context Trees,” **IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)**, April 19-24, 2015.
5. **N. D. Vanli**, M. O. Sayin, H. Yilmaz, T. Goze, and S. S. Kozat, “Energy Consumption Forecasting via Order Preserving Pattern Matching,” **IEEE Global Conference on Signal and Information Processing (GlobalSIP)**, pp. 238-242, Dec. 3-5, 2014.
6. M. O. Sayin, **N. D. Vanli**, T. Goze, and S. S. Kozat, “Communication Efficient Channel Estimation Over Distributed Networks,” **IEEE Global Conference on Signal and Information Processing (GlobalSIP)**, pp. 138-142, Dec. 3-5, 2014.
7. **N. D. Vanli**, M. O. Sayin, and S. S. Kozat, “Piecewise Nonlinear Regression via Decision Adaptive Trees,” **European Signal Processing Conference (EUSIPCO)**, pp. 1188-1192, Sep. 1-5, 2014.
8. **N. D. Vanli**, M. O. Sayin, and S. S. Kozat, “Comprehensive Lower Bounds on Sequential Prediction,” **European Signal Processing Conference (EUSIPCO)**, pp. 1193-1196, Sep. 1-5, 2014.
9. **N. D. Vanli**, M. A. Donmez, and S. S. Kozat, “Robust Regularized Least Squares Estimation in the Presence of Bounded Data Uncertainties,” **IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)**, pp. 5637-5640, May 4-9, 2014.
10. M. O. Sayin, **N. D. Vanli**, and S. S. Kozat, “Improved Convergence Performance of Adaptive Algorithms with Logarithmic Cost,” **IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)**, pp. 4513-4517, May 4-9, 2014.

11. M. O. Sayin, **N. D. Vanli**, and S. S. Kozat, “Logarithmic Regret Bound Over Diffusion Based Distributed Estimation,” **IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)**, pp. 8287-8291, May 4-9, 2014.
12. **N. D. Vanli** and S. S. Kozat, “Sequential Nonlinear Regression via Context Trees,” **IEEE Signal Processing and Communications Applications Conference (SIU)**, pp. 1865-1868, April 23-25, 2014.
13. **N. D. Vanli**, M. O. Sayin, and S. S. Kozat, “Competitive Linear MMSE Estimation Under Structured Data Uncertainties,” **IEEE Signal Processing and Communications Applications Conference (SIU)**, pp. 1861-1864, April 23-25, 2014.
14. M. O. Sayin, **N. D. Vanli**, and S. S. Kozat, “Robust Set-Membership Filtering Algorithms Against Impulsive Noise,” **IEEE Signal Processing and Communications Applications Conference (SIU)**, pp. 1551-1554, April 23-25, 2014.
15. B. Dulek, **N. D. Vanli** and S. Gezici, “Convexity Properties of Outage Probability under Rayleigh Fading,” **IEEE Signal Processing and Communications Applications Conference (SIU)**, pp. 1-4, April 18-20, 2012.

INDUSTRIAL & Intern Engineer
ACADEMIC **ASELSAN** Inc., REHIS REDET-SMD, Ankara Jan 2013 – June 2013
EXPERIENCE Radar emitter classification using intrapulse data, i.e., unintentional modulation on pulse (UMOP).

Summer Intern
HAVELSAN Inc., Software Engineering Division, Ankara June 2012 – July 2012
 Design of Online Student Academic Information Registration System using **Prime Faces** for Hacettepe University.

METEKSAN Defence Inc., Electronic Design Division, Ankara Aug 2011 - Sep 2011
 Modeling and simulation of serial port communications using microprocessor embedded FPGA via Assembly and VHDL.

Teaching Assistant Experience
 EEE-424: Digital Signal Processing Sep 2014 – Jan 2015
 EEE-321: Signals and Systems Feb 2014 – June 2014
 EEE-424: Digital Signal Processing Sep 2013 – Jan 2014

Tutor & Grader Experience
 CS-102: Algorithms and Programming II Feb 2013 – May 2013
 MATH-102: Calculus II June 2011 – July 2011
 CS-101: Algorithms and Programming I Feb 2010 – May 2010

Ad-hoc Reviewer
 IEEE Transactions on Signal Processing, IEEE Signal Processing Letters.

SKILLS **Languages**
 Turkish (Native), English (Fluent, TOEFL: 108), Russian (Pre-intermediate)

Programming
 MATLAB, C++, Java, Assembly, VHDL, $\text{\LaTeX}$

EXTRACUR- Voluntary Work
RICULAR Worked as a member of Community Volunteers Foundation (TOG) in order to help guttersnipes and
ACTIVITY encourage them to continue their educational life. (May 2011 – June 2012)

Sports
 Bilkent Fit Challenge Winner for four semesters. (2012-2013 Spring, 2012-2013 Fall, 2011-2012 Spring, 2010-2011 Spring)